Illinois Code	Language	How Armada Fits with The Illinois Code
5/16-108.18(e)(2)	The Commission shall approve, based on the substantial evidence proffered in the proceeding initiated pursuant to this subsection performance metrics that, to the extent practicable and achievable by the electric utility, encourage cost-effective, equitable utility achievement of the outcomes described in this subsection (e) while ensuring no degradation in the significant performance improvement achieved through previously established performance metrics	The Armada technology is behind the meter thermal storage utilizing water heaters. Armada provides residential demand control technology, and serves as a low cost utility solution because: -The Armada device operates on electric resistance water heaters, which are 1/3 of the cost of a heat pump water heater; -Electric resistance water heaters are in most low income and multifamily where individual water-heaters are used; -Armada Technology is non-invasive and have a cellular option, which works better for renters which tend have higher turnover, don't have to set up device on Wi-Fi. Utility programs should offer customers the option to provide utilities authorization for participation in Wholesale DR in addition to the utility program. Where the utility provides the customer acct to DR Wholesale provider. Armada is does not need to be the only program, but rather another program offering.
5/16-108.18(e)(2)(A)(i)	Metrics designed to ensure the utility maintains and improves the high standards of both overall and locational reliability and resiliency, and makes improvements in power quality, including and particularly in environmental justice and equity investment eligible communities.	Each Armada unit has a revenue grade meter to measure both usage and demand. This provides circuit level insights through aggregating water heaters. The utilities should get credit for providing performance features to the grid, beyond demand control: -Cold-Load Pick up capabilities - after an outage event, cold-load-pick-up reduces the residential demand so there is not a surge on grid and secondary outage; and -Droop Control
5/16-108.18(e)(2)(A)(ii)	Peak load reductions attributable to demand response programs.	Armada devices can provide millisecond shifts in response to a variety of utility and wholesale grid calls including: -Peak Events -Real Time Pricing -Frequency Regulation -Renewables Firming - shift up and shift down to respond to the needs of the grid
5/16-108.18(e)(2)(A)(iii)	The utilities shall provide solutions, resources, and tools to address complex barriers of entry related to costly and time-intensive cyber security requirements, increasingly complex information technology requirements, insurance barriers, service provider sign-up process barriers, administrative process barriers, and other barriers that inhibit access to RFPs and contracts.	Each Armada device has an individual security certification, unique to each device and signed by a certificate authority. The private keys for the device certificate are stored in a hardware security chip that ensures private keys are never loaded into RAM or communication bus. Ensuring the security of each device, as well as the whole system. To reduce complex barriers of entry and sign-up process barriers utility residential customers should automatically be enrolled in the utility DR program and participation in the utility program should not prohibit participation in Wholesale program. California PUC ordered a similar allowance - please see attached. Create a system where homeowner, landlords, and tenants

		participate based on premise address to keep account numbers secure, and then utilities can provide the acct numbers to the CSP and ISO to participate in the wholesale aggregation - based on input from property owners. Separates from suppliers. Providing the broadest value for the programs and enabling greater participation. Utility gets credit in demand reduction in both programs
5/16-108.18(e)(2)(A)(iv)	Achieve affordable customer delivery service costs, with particular emphasis on keeping the bills of lower-income households, households in equity investment eligible communities, and household in environmental justice communities within a manageable portion of their income and adopting credit and collection policies that reduce disconnections for these households specifically and for customers overall to ensure equitable disconnections, late fees, or arrearages as a result of utility credit and collection practices, which may include consideration of impact by zip code.	
5/16-108.18(e)(2)(A)(v)	Metrics designed around the utility's timeliness to customer requests for interconnection in key milestone areas, such as: initial response, supplemental review, and system feasibility study; improved average service reliability index for those customers that have interconnected a distributed renewable energy generation device to the utility's distribution system and are lawfully taking service under an applicable tariff; offering a variety of affordable rate options, including demand response, time of use rates for delivery and supply, real-time pricing rates for supply; comprehensive and predictable net metering, maximizing the benefits of grid modernization and clean energy for ratepayers; and improving customer access to utility system information according to consumer demand and interest.	Armada improves interconnection system readiness by: -Offering millisecond shifts to comply with advanced rate options the customer chooses, -Renewable firming capable to shift when renewables are actually producing (not RECs, actual production), - Accept quick discharges form the grid to extend battery life.
5/16-108.18(e)(2)(A)(vi)	Metrics designed to measure the utility's customer service performance, which may include the average length of time to answer a customer's call by a customer service representative, the abandoned call rate and the relative ranking of the electric utility, by a reputable third-party organization, in customer service satisfaction when compared to other similar electric utilities in the Midwest region.	Armada provides insights beyond traditional customer service – Providing utility CSR with insights as to what is happening with the device, provides actual detailed response to diagnose a customer issue water heater or device, shortening call times. - customer satisfaction, app can reduce the number of calls received

5/16-108.18(e)(2)(B)	Performance metrics shall include a description of the metric, a calculation method, a data collection method, annual performance targets, and any incentives or penalties for the utility's achievement of, or failure to achieve, their performance targets, provided that the total amount of potential incentives and penalties shall be symmetrical. Incentives shall be rewards or penalties or both, reflected as basis points added to, or subtracted from, the utility's cost of equity. The metrics and incentives shall apply for the entire time period covered by a Multi-Year Rate Plan. The total for all metrics shall be equal to 40 basis points, however, the Commission may adjust the basis points upward or downward by up to 20 basis points for any given Multi-Year Rate Plan, as appropriate, but in no event may the total exceed 60 basis points or fall below 20 basis points.	Integrated revenue grade metering in each individual unit, providing measurement and verification metrics for each individual unit.
5/16-108.18(e)(2)(C)	Metrics related to reliability shall be implemented to ensure equitable benefits to environmental justice and equity investment eligible communities, as defined in this Act.	Integrated revenue grade metering in each individual unit, providing measurement and verification metrics for each individual unit.
5/16-108.18(e)(2)(D)	The Commission shall approve performance metrics that are reasonably within control of the utility to achieve. The Commission also shall not approve a metric that is solely expected to have the effect of reducing the workforce. Performance metrics should measure outcomes and actual, rather than projected, results where possible. Nothing in this paragraph is intended to require that different electric utilities must be subject to the same metrics, goals, or incentives.	Integrated revenue grade metering in each individual unit, providing measurement and verification metrics for each individual unit.
5/16-108.18(e)(2)(E)	Increases or enhancements to an existing performance goal or target shall be considered in light of other metrics, cost-effectiveness, and other factors the Commission deems appropriate. Performance metrics shall include one year of tracking data collected in a consistent manner, verifiable by an independent evaluator in order to establish a baseline and measure outcomes and actual results against projections where possible.	Integrated revenue grade metering in each individual unit, providing measurement and verification metrics for each individual unit.
5/16-108.18(e)(2)(F)	For the purpose of determining reasonable performance metrics and related incentives, the Commission shall develop a methodology to calculate net benefits that includes customer and societal costs and benefits and quantifies the effect on delivery	To create a program with incentives the commission should allow a duel program: a utility program, which also provides access to wholesale programs. Allowing customers dual participation provides greater incentives to the customer, greater participation, and reduces program cost.

	rates. In determining the appropriate level of a performance incentive, the Commission shall consider: the extent to which the amount is likely to encourage the utility to achieve the performance target in the least cost manner; the value of benefits to customers, the grid, public health and safety, and the environment from achievement of the performance target, including in particular benefits to equity investment eligible community; the affordability of customer's electric bills, including low-income customers, the utility's revenue requirement, the promotion of renewable and distributed energy, and other such factors that the Commission deems appropriate. The consideration of these factors shall result in an incentive level that ensures benefits exceed costs for customers.	
5/16-108.18(e)(2)(G)	Achievement of performance metrics are based on the assumptions that the utility will adopt or implement the technology and equipment and make the investments to the extent reasonably necessary to achieve the goal.	What does it mean for a utility adopted program: Are devices customer owned? Are they utility provided? This section requires multiple categories to allow for cost effective participation by customer invested technologies which are committed to the utility for use but also utility provided technologies which are provided to customers for utility use.
5/16-108.18(e)(3)	The Commission shall approve reasonable and appropriate tracking metrics to collect and monitor data for the purpose of measuring and reporting utility performance and for establishing future performance metrics. These additional tracking metrics shall include at least one metric from each of the following categories of performance:	
5/16-108.18(e)(3)(A)	Minimize emissions of greenhouse gases and other air pollutants that harm human health, particularly in environmental justice and equity investment eligible communities, through minimizing total emissions by accelerating electrification of transportation, buildings and industries where such electrification results in net reductions, across all fuels and over the life of electrification measures, of greenhouse gases and other pollutants, taking into consideration the fuel mix used to produce electricity at the relevant hour and the effect of accelerating electrification on electricity delivery services rates, supply prices and peak demand, provided the revenues the utility receives from accelerating electrification of transportation, buildings and industries exceed the costs.	Offer credits to swap out gas water heaters for electric resistance water heaters, which are 1/3 the cost HPWH, with armada devices provides greater benefits for the grid and reductions at lower cost. Further, electric resistance water heaters offer greater response capabilities to grid needs than heat pump water heaters.

5/16-108.18(e)(3)(B)	Enhance the grid's flexibility to adapt to increased deployment of non-dispatchable resources, improve the ability and performance of the grid on load balancing, and offer a variety of rate plans to match consumer consumption patterns and lower consumer bills for electricity delivery and supply.	Millisecond shift to respond to the needs, can be shifted in a non-invasive manner, while still maintaining the hot water needs of the household.
5/16-108.18(e)(3)(C)	Ensure rates reflect cost savings attributable to grid modernization and utilize distributed energy resources that allow the utility to defer or forgo traditional grid investments that would otherwise be required to provide safe and reliable service.	To The extent there are batteries, we extend the life of those batteries by taking on the quick discharge which reduces cost of grid-based storage. We provide circuit level control without the need for expensive volt var technology. Renewables Firming, Cold Load Pick Up, and Droop Control.
5/16-108.18(e)(3)(D)	Metrics designed to create and sustain full-time-equivalent jobs and opportunities for all segments of the population and workforce, including minority-owned businesses, women-owned businesses, veteran-owned businesses, and businesses owned by a person or persons with a disability, and that do not, consistent with State and federal law, discriminate based on race or socioeconomic status as a result of this amendatory Act of the 102nd General Assembly.	
5/16-108.18(e)(3)(E)	Maximize and prioritize the allocation of grid planning benefits to environmental justice and economically disadvantaged customers and communities, such that all metrics provide equitable benefits across the utility's service territory and maintain and improve utility customers' access to uninterrupted utility services.	Armada Power fits wherever there is an electric resistance water heater, or a gas water heater is being replaced with an electric resistance water heater. This program should be developed such that smart devices become a basic of every home, like a refrigerator. A program should be designed for every type of residential customer. A program must consider building type and ownership. Is the area single family homes or is the area multitenant buildings? Is the area mainly rented or owned? For example, a home that is rented should target the landlord to ensure tenant access to the technology. Providing a tenant, a thermostat they cannot install will not achieve benefits. However, it the area is home which are owned but need investment in EE/DR technology or weatherization or controls then programs which offer low or no cost technology PLUS installation assist will be needed.